

ASBESTOS in B&CB FACILITIES

What is Asbestos?

A mineral fiber used in building materials (at work and at home) because it is plentiful, cheap, fireproof, enhances strength, does not conduct electricity and it is impervious to chemicals.

What does asbestos look like?

Asbestos occurs as crystals but by the time it is incorporated into a product the fibers are so small you would need a microscope to see them!

Is asbestos dangerous?

An Asbestos Containing Material (ACM) that can be easily crumbled (friable) is dangerous because it can easily release its microscopic asbestos fibers. ACM that is hard to damage (non-friable) can still release asbestos when damaged such as by cutting, sawing and sanding. The danger of asbestos is when the microscopic fibers get airborne and are inhaled they stay in you forever and can lead to chronic (long-term) diseases:

- Asbestosis (reduces your lung capacity through accumulated lung scarring)
- Mesothelioma (cancer between the inner and outer lining of the lungs)
- Lung Cancer (smoking alone increases your chance of lung cancer and you are encouraged not to smoke but the combination of smoking and asbestos increases your chance of getting lung cancer by 50-100 times the normal risk)

How quickly would I get sick if I worked with asbestos?

Whether you get sick depends on how often and how much you are exposed to asbestos. A one-time small amount has little potential for injury. It is very doubtful that one fiber will kill; otherwise we'd all be dead by 30 years old because we've all been exposed. The more medically accepted dose-response theory is the greater the exposure, the greater the risk. Symptoms of asbestos-related diseases may not show for 10 to 40 years even with chronic exposure.

Am I entitled to a medical exam if I am exposed to asbestos?

Since employees at General Services are to follow work procedures that prevent chronic exposure to asbestos, employees that experience one-time or short-term exposures most likely will not contract an asbestos related disease. An X-Ray or other tests will not provide you with any useful asbestos-related injury information, but you may always consult with your doctor if you are still concerned. Workers Compensation probably will not cover such a consult.

What is a "safe" level of asbestos exposure?

The current Permissible Exposure Limit is 0.1 fibers per cubic centimeter (f/cc) per an average 8-hour workday or 1 f/cc per 30 minutes of exposure. Exposure level is normally determined through air sampling not required for General Services due to our work procedures.

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Where can I expect to find asbestos?

Asbestos has been used in thermal system insulation (boilers, chiller/steam pipes), surfacing materials (stucco, acoustical ceiling tile, mastics, gypsum board, joint compound), (vinyl tile) flooring, roofing, and in many other ways. The Consumer Product Safety Commission has banned the use of asbestos in many products for several decades, and other regulatory agencies like the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) also regulate asbestos. However, other countries are not as strict as the U.S. and many imported materials still contain asbestos.

- Asbestos Containing Material (ACM): any building material that contains more than one percent (1%) asbestos
- Presumed ACM (PACM): Thermal System Insulation, Surfacing Materials and Floor Tile installed prior to 1980 can be presumed to (treated as if it does) contain asbestos. Other materials that have a historical basis may also be presumed to contain asbestos, like fire doors.

Who may be exposed to asbestos?

Employees in General Services should not be exposed to asbestos through their routine work practices. However, employees in Facilities Management's Building Maintenance, Building Systems and Energy/Environmental teams as well as the Custodial Floor crew have activities that bring them into closest contact to ACM/PACM. Other Custodial staff also must be aware of specific locations where asbestos is known or suspected to exist so they won't inadvertently disturb it and to use proper housekeeping practices and maintenance procedures.

What should I do if I think any materials in my work area contain asbestos?

- You should always check the O&M manual or Asbestos Summary Log to determine if your work area contains ACM/PACM prior to beginning work.
- Otherwise, stop your work then immediately notify your supervisor, the Asbestos Control Manager or Safety who will inspect the area and check our records to determine if the material has to be tested, repaired or removed, as required. Do not proceed without authorization and further instruction.

How long will testing take?

General Services has several asbestos-certified contractors on call (indefinite delivery contracts) available to inspect, test, and to remove or repair ACM/PACM. There is no field-testing that will tell us that a material does or does not contain asbestos. Samples have to be taken and sent to a laboratory. Results normally take a week but they can also be expressed overnight so may only take a few days.

Is testing necessary?

No. Historical evidence has proven that certain materials usually contain asbestos so are considered as PACM. However, the only way to prove a *suspect* material does *not* contain asbestos is to test it and this could save significant repair costs for General Services. Materials manufactured with no asbestos usually are labeled "asbestos free."

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How am I to do my work if there is ACM/PACM?

After determining that materials in your assigned work area contain asbestos then the Asbestos Control Manager will hire an asbestos-qualified contractor to remove enough of the material for you to do your work. After your work is completed, the replacement materials should be asbestos-free.

Why don't we just remove all asbestos?

As long as the ACM is in good condition and remains undamaged there is very little chance of an asbestos exposure. Almost all of the ACM has been removed where our maintenance crews need to do preventive and corrective maintenance. Additionally, so much asbestos was originally installed that removal would take years, be very costly, would unnecessarily interfere with our normal operations and the cleanup itself would expose workers – all reasons why the EPA does not advocate such a clean up process.

If I can't see it, how do I know where asbestos is located?

- An Operations & Maintenance (O&M) manual for each building includes construction records, professional asbestos testing and laboratory analysis. These manuals are located in Room 107 at the FM Office Building, 921 Main Street in Columbia.
- Since the O&M manuals are reference books and are not to be removed, a summary log is available for all employees.
- Questions about asbestos can be directed to Aaron Redmond, Asbestos Control Manager, or to Bernie Lee, Safety (phone numbers below).

How could I be exposed to asbestos?

Asbestos can be released when the ACM becomes damaged by:

- Physical Contact, i.e., scraped, gouged, crushed, and use of portable power tools
- Air Erosion, i.e., high velocity air flow
- Vibration, i.e., from water/air pressure, loud noises, nearby vehicle traffic
- Water, i.e., rain or water leaks

What does asbestos damage look like?

The damaged material in which asbestos is contained and or its covering can be:

- Deteriorated, i.e., pieces hanging down, crumbled or pieces of debris or dust below
- Delaminating, i.e., the layers in a material have come apart (flaking, blistering), are curling or the glue is no longer adhering and has separated
- Water stained, i.e., significant or repeated leaks, drooping materials, debris

What should I do if I see damaged ACM/PACM?

If you see or suspect that ACM has been damaged, or even if you do not know if the debris contains asbestos:

- Stop. Immediately notify your supervisor, the Asbestos Control Manager or Safety.
 - The Asbestos Control Manager is to report a Major Release (more than 3 square or linear feet) of friable ACM to DHEC
- If there is a debris pile or danger of falling material, cordon off the area.

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- Report any of the following ACM/PACM damage to your supervisor, the Asbestos Control Manager or Safety:
 - Dust from vibrating equipment, pipes, etc.
 - Pieces of fallen insulation
 - Floor tile that has broken or come loose
 - Pieces of fallen ceiling tile
 - Water damaged ceiling tile, sheet rock, insulation or floor tiles
 - ACM damaged by being struck
 - Debris of unknown contents
- Wait for further instruction.

How do I keep from disturbing or damaging ACM/PACM?

- Only trained and authorized (contracted) personnel are to work with ACM/PACM
- Do not drill, grind, sand, cut, saw, abrade, break, core, puncture or otherwise damage ACM/PACM
- Avoid contact, i.e., do not touch, hang or lean ladders, brooms or other objects, tools or equipment onto, from or against ACM/PACM

What housekeeping procedures can I use in areas that have ACM/PACM?

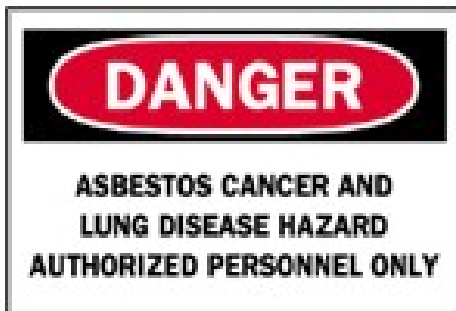
- Dry sweeping, dusting or using compressed air on dust or debris suspected or known to contain asbestos is prohibited
- Use wet clean-up methods, i.e., wipe with damp rag, wet mop or steam clean carpets
- Vinyl and asphalt flooring can be maintained by:
 - Stripping finishes using low abrasion pads at speeds less than 300 rpm and wet methods
 - Burnishing or dry buffing may be done if the flooring has sufficient finish so the pad does not contact the flooring material
- Use a HEPA vacuum to collect dust and dispose of debris in a leak tight container
 - Contact Asbestos Control Manager for proper disposal of ACM debris

Is anything being done to protect General Services employees, tenants and visitors from asbestos exposure during renovations?

- Besides our asbestos safety policy and employee awareness training, work practices include hiring an asbestos-qualified contractor to remove, repair or contain asbestos, and clean the area before you can do your work.
 - o Contractors hired to do work involving ACM are to use physical barriers (such as sheets of plastic), warnings (such as signs and warning tape prohibiting entry except to authorized workers), and vacuum capture systems to protect anyone not involved in the asbestos work. ACM debris must be disposed of using special procedures and only in asbestos-authorized waste sites.

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“Unauthorized Persons” means you! “Authorized Personnel” does not mean you!



- Public areas in our facilities were abated (repaired or removed) in the late 1980s and other ACM in the late 90s. Abatement, renovations and demolition work must have been prior-approved by DHEC. ACM waste must also be disposed of in DHEC-approved landfills.
- Any ACM that remains must:
 - o Have signs posted warning of the ACM
 - o Be regularly inspected. If it has been damaged or deteriorated then it has to be abated.

Can I work, sweep or dust in areas where there are asbestos warning signs?

Even if there is ACM in your work area but it is in good condition then sweeping and dusting are OK. However, repair, removal or replacement of ACM is prohibited for General Services' employees.

Why are asbestos warning signs in my area?

- Asbestos warning labels are usually placed where there is likelihood to cause damage to ACM; they are to warn you to take care when doing maintenance or housekeeping so as not to damage to known or presumed ACM.
- Warning signs providing a list of all materials confirmed or assumed to contain asbestos in the building are posted at entrances to Mechanical and Janitorial Rooms in the building to make employees aware of the ACM/PACM to avoid inadvertent damage. They also serve as a reminder that if you see any damage to these materials that you are to report that damage.

Why do I have to have this Asbestos Awareness training?

- The OSHA standard on protecting employees from asbestos, 29 CFR 1910.1001, requires all maintenance and housekeeping staff to have Asbestos Awareness training upon initial hire and annually thereafter.
- General Services is committed to making you aware of potential hazards in the work place and how you can protect yourself.
- You or fellow employees and managers asked for it.